



Mexican spotted owls continue to nest in protected habitats

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The June sun started to rise as a team of Laboratory biologists made its way through Threemile Canyon, which is southwest of Mesita del Buey in Los Alamos. The deep canyon thrives with a mixed-conifer, ponderosa pine forest that serves as a haven for a variety of wildlife. The biologists trekked alongside sheer rock-lined cliffs covered with dense vegetation. High above, obscured by the forest, were several Laboratory buildings. Down at the base of the canyon, it is an entirely different world.

The team was searching for a pair of Mexican spotted owls and any sign of newly fledged nestlings. A medium-sized bird (averaging 16- to 19-inches tall), the Mexican spotted owl is noted for its startling dark-brown eyes — most owls have yellow eyes. This owl gets its name from its geographic range and its distinct brown coloration with white spots that cover the bird from beak to tail.

Periodically, the biologists stopped and looked atop trees or along the cliff sides for any sign of the owls. At first, the team saw nothing, but as they moved deeper into the canyon, the biologists spotted an adult male owl high in a ponderosa tree. Shortly after, they spotted the adult female and three owlets huddled together on the limb of an old growth oak tree. Covered in down feathers, the owlets looked at the biologists with what seemed like curiosity. The mated adult pair, which quickly came to protect the owlets, was likely the same pair biologists identified in previous years, as Mexican spotted owls mate for life and nest in the same general location for as long as they live.

The biologists subsequently paid a visit to Mortandad Canyon along the western part of the Pajarito Plateau, where they found another mated pair, also with three new owlets.

A threatened species

The Mexican spotted owl is listed as a threatened species under the Endangered Species Act, a U.S. Conservation law established in 1973 to conserve and protect endangered and threatened species and their habitats. A threatened species is defined as any species likely to become endangered within the foreseeable future throughout all or a significant portion of its range — such species could eventually become extinct.

Not just anyone can venture into these habitats. The U.S. Fish and Wildlife Service grants a federal permit so that Laboratory biologists can perform this work during the owls' breeding season.

The Pajarito Plateau is part of the Jemez Mountains, bounded by the Valles Caldera to the west and White Rock Canyon to the east. This vibrant area is home to Los Alamos National Laboratory, the Bandelier National Monument, part of the Santa Fe National Forest, San Ildefonso Pueblo, and the communities of Los Alamos and White Rock. The Laboratory is peppered throughout 40 square miles, but many of those miles remain undeveloped, making these areas ideal habitats for animals like the Mexican spotted owl.

To protect the owl and comply with the requirements of the Endangered Species Act, the Department of Energy's National Nuclear Security Administration developed a habitat management plan for all threatened and endangered species at the Laboratory. This plan received concurrence from the U.S. Fish and Wildlife Service in 1999 and has been in effect ever since. This plan enables the Laboratory to execute its national security mission successfully but also protect all federally listed species in the area.

As part of the plan, habitat for the Mexican spotted owl, like that found in Threemile and Mortandad canyons, is protected against loss, alteration and disturbance. Moreover, during the owls' breeding season, noise generated from construction or other activities is restricted.

Helping wildlife thrive

Another federally protected species on Laboratory property is the Jemez Mountains salamander, a tiny, subsurface amphibian that has no lungs and thus must stay moist to absorb oxygen through its skin. The salamander was listed as endangered in 2013, and since then, undeveloped habitat at the Laboratory has become a sanctuary for this underground creature.

Because hunting is prohibited on Laboratory property, wildlife that is not threatened thrives in the area. On any given day, Laboratory employees and visitors may spot deer and elk herds, coyotes, bears, mountain lions and bobcats — these animals roam Laboratory property year-round.

Although the Laboratory remains stalwart in its ever-growing national security mission, it also remains committed to maintaining a healthy balance between mission success and environmental stewardship. Such a balance means a great deal to the people who work here and the surrounding neighbors. Many employees enjoy the great outdoors and want to pass on this joy to their children and grandchildren.

By preserving and enabling species like the Mexican spotted owl to thrive, the Laboratory and its employees hope that one day the owl will be removed from the threatened species list. Until then, keep an ear out at night for the sound of four hooped notes with the middle two closest together, it might be a Mexican spotted owl.